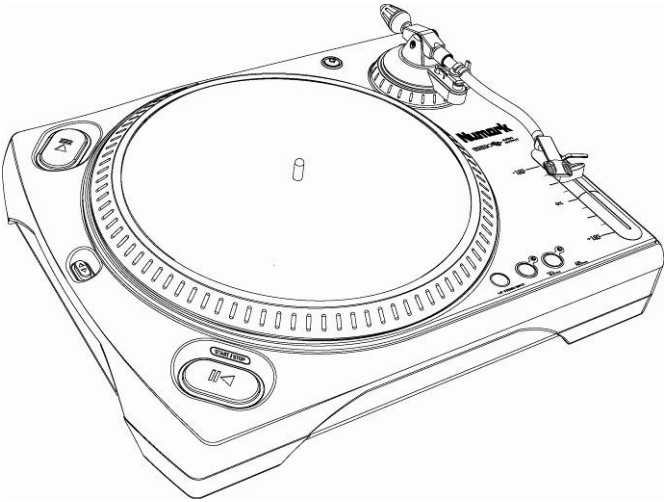
Numark

USB Turntable (TTUSB)



Software Installation

Audacity Recording Software

Table of Contents

General Software Notes

Your USB turntable is compatible with any recording software that supports USB Audio devices. We have included Audacity, however you may prefer to use a variety of 3rd party software packages.

Audacity is free software, distributed under the General Public License (GPL). More information as well as open source code can be found on the CD included or on the web at http://audacity.sourceforge.net

Audacity works on both Windows (98 and greater) as well as Mac OS (X and 9.2+). Software for Linux can be found on the Audacity website.

Go to http://audacity.sourceforge.net/help/tutorials for additional tutorials.

The website also has information for separate add-ons to Audacity to enhance performance and features.

Audacity Software Installation

Before Starting the Software

Make sure that your USB turntable is plugged into the computer and both the computer and the turntable are plugged in and on. Refer to the TTUSB quick start instruction manual included before proceeding with software installation.

REMOVE THE CLEAR PLASTICCARTRIDGE (NEEDLE) COVER

For your first recording, we recommend that you perform a test on about a minute or less of audio to become familiar with the full process before recording a full LP.

To Install Software (PC)

1. Plug in your turntable to an AC outlet and connect the USB port on the TTUSB to the USB port of your computer.
2. Turn your computer on and allow it to boot fully if it is not on already.
3. Turn on the power switch to your turntable.
4. Your computer will say that Windows detects a new device and that it is available to use.
5. Insert the CD that came with your TTUSB.
6. Run the file “install audacity-win-1.2.3.exe”.
7. Once installed, run the Audacity program.
8. *Optional: install SoundSoap 2 Demo by clicking on folder and opening “setup.exe”*

To Install Software (MAC)

1. Insert the included CD
2. Open the CD icon on the desktop.
3. Drag the installation folder for audacity to your hard drive. We recommend that you move the folder to your “Applications” folder.
4. A window will come up which shows the files copying.
5. EJECT the CD.
6. Open “Audacity” from where you moved it to on your hard drive.
7. *Optional: Install additional trial software included on the CD.*

Software Configuration

1. Click on Microphone in the drop down menu and select “Stereo Mix”

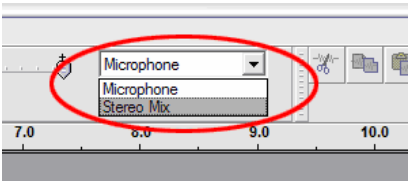


Figure 1: Select Stereo Mix

2. Select the “File” menu and then “Preferences”

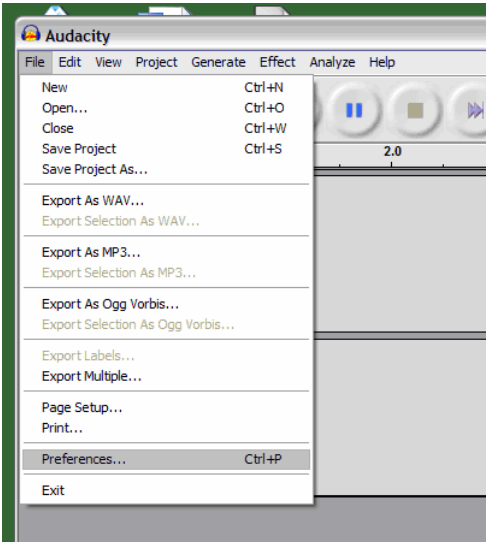


Figure 2: Select Preferences

The “Audacity Preferences” window will come up (Figure 3). Select the USB audio device under the “Recording” selection as shown. Select “Software Playthrough” to hear the audio while recording.

Note: The TTUSB may show up with a different name in the preference window. This may depend on your computer model and operating system. 99% of the time it will contain “USB” in the Name.

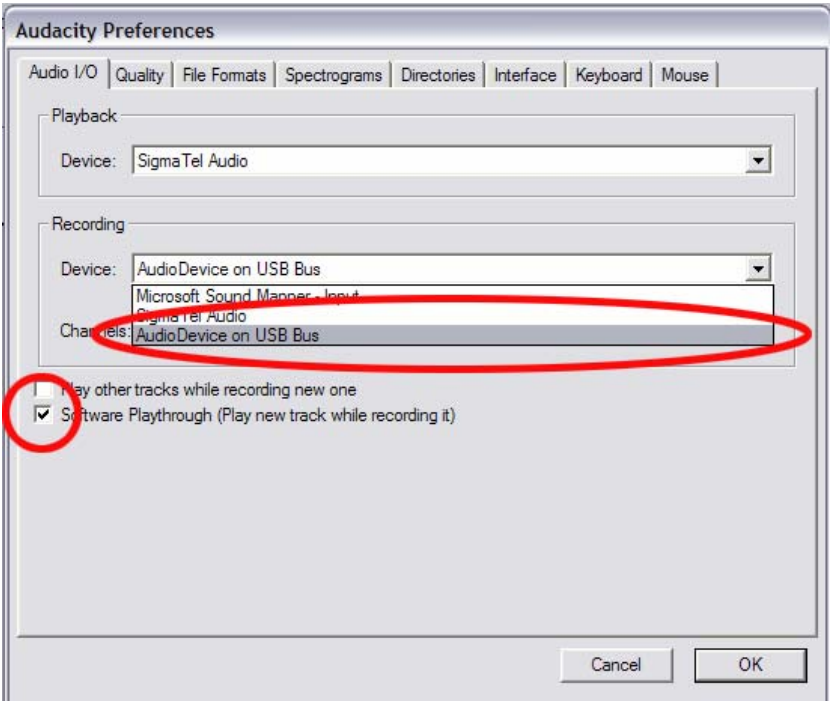


Figure 3: Select USB Audio Device from Preferences

Now that your preferences are set, you are ready to record.

If you are still having difficulty finding the USB Turntable, try opening up your system settings or control panel to adjust audio input settings from the sound control panel. Also see the troubleshooting section at the end of this manual.

Configuring Audacity for Mac OS 10.4 and above

When using Audacity v1.2.4 with OS-10.4 and above, first open the Apple AUDIO MIDI SETUP control panel which should be located in your UTILITIES folder. Using the buttons at the top, select the AUDIO DEVICES window.

Connect your ITUSB, **DO NOT** open Audacity v1.2.4 yet.

You will notice that some of the settings in the AUDIO MIDI SETUP window change to reflect settings for the USB device. (If not, go to PROPERTIES FOR => and select USB AUDIO CODEC in the pull down window.)

You can now open Audacity v1.2.4. When Audacity loads, you will again notice that the format settings for both the inputs and outputs will change in the AUDIO MIDI SETUP window. These settings will be in error, and will not give you proper audio performance. In fact, each time Audacity v.1.2.4 is opened this reset will occur.

To work around this problem, wait until Audacity opens and performs the erroneous format reset outlined above, then you simply have to select the desired format settings manually in the AUDIO MIDI SETUP window.

1) FIRST make ALL of your desired format settings in Audacity. These are found under AUDACITY MENU =>PREFERENCES => AUDIO I/O => Set Channels for 2 (Stereo), and playthrough on or off (Choose “On” if you want to listen while recording.)

2) Next, while still in AUDACITY MENU =>PREFERENCES, click the QUALITY tab and set the default Sample Rate and the default Sample Format (44100, 16-bit)

3) Click OK to save all of the preferences settings.

4) Next set the PROJECT RATE in the lower left corner of the Audacity window to match your desired sample rate (usually 44100 or 48000).

5) In the AUDIO MIDI SETUP window on the input side, first select 2 ch-16 bit, then select your sample rate. (Usually 44100 or 48000 Hz). Then do the same on the output side.

NOTE: These settings must match exactly to the format settings in Audacity. If not, Audacity will perform the same reset routine on the AUDIO MIDI SETUP window when you activate the recording function in Audacity. If your settings match, then you are ready to begin recording.

The basic rule is, after Audacity is open, use the AUDIO MIDI SETUP utility to manually select format settings that match the format settings in Audacity. If you make any format changes in Audacity, you need to also go back to the AUDIO MIDI SETUP window and make the same changes. (It is usually easiest to leave the AUDIO MIDI SETUP window open on the desktop.)

Recording into the Computer

Note: We recommend that the first time you use the software you test with a small (1min or less) section of audio while recording. Once you feel comfortable with recording, then record a full song or LP.

1. Press the Record Button 
2. Start playback on the USB Turntable. You will see the waveform of the audio on the screen as it is recording. You will hear the audio coming from the USB Turntable.

   No Audio? - go back to the preference menu (Figure 3) and make sure you have "Software Playthrough" selected and the speaker volume up on your computer. See troubleshooting at the end of this manual for more help.

3. Play through the entire track/album you desire to record.
4. Press Stop 
5. **SAVE YOUR FILE NOW**
6. You have completed the recording process. (See Figure 4)

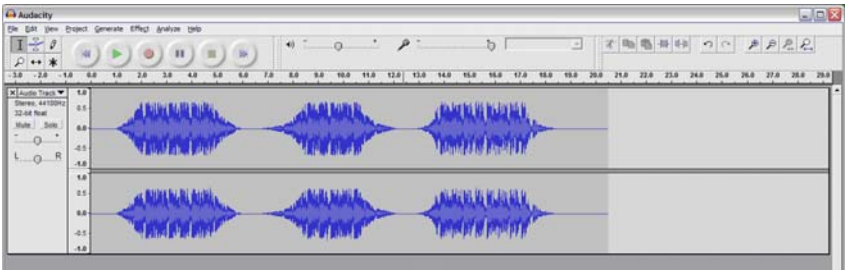


Figure 4: Recording Sample

Adjusting Your Audio Level (Optional)

1. Select your entire recording by selecting “Edit”, then the “Select…”, then click “All”. You can also use Ctrl+A on a PC or APPLE+A on a Macintosh to quickly select all.

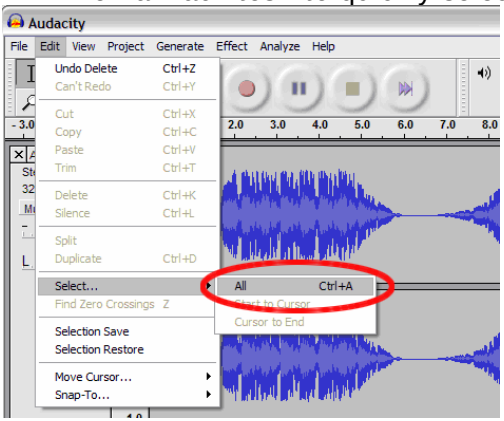


Figure 5: Select All

2. Select the “Effect” menu and choose the desired effect.
   a. There are various types of effects which are described further in the software’s help section as well as on the web (See Figure 6).
   b. Normalize should be used to have the correct volume on the recording. (See Figure 7)

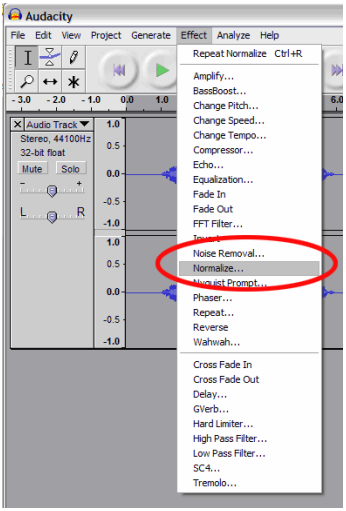


Figure 6: Effect Drop Down List

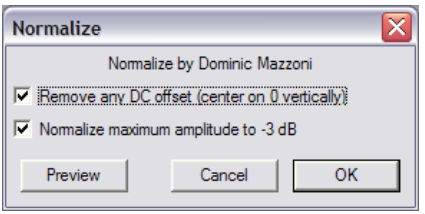


Figure 7: Normalize

Cleaning Your Audio (Optional)

1. Select a portion of the audio track which contains noise. We recommend using the beginning or the end of a track where there is no music and only vinyl noise. (See Figure 8)
2. Select "Noise Removal" from the "Effect" drop down menu to bring up the "Noise Removal" window. (See Figure 9)
3. Click "Get Noise Profile". The Noise Removal window will now close automatically.
4. Select the entire track of audio you wish to remove noise from. If you wish to clean up the entire recording use "Select All" under the "Edit Menu" (See Figure 5)
5. Repeat Step 2 to bring up the "Noise Removal" Window.
6. Adjust the amount of audio that you would like to filter by the slider in the "Noise Removal" window. We recommend using the minimum noise removal for optimum sound. *Note: you can preview the audio before removing the noise.*

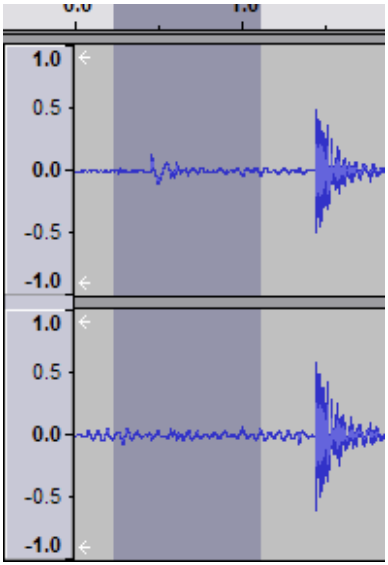


Figure 8: Selecting Noise in Track

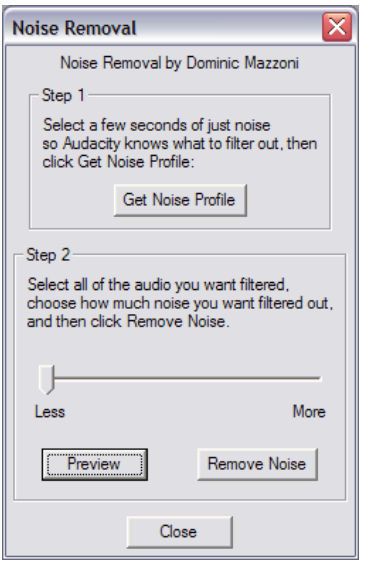


Figure 9: Noise Removal Window

Additional Editing Notes:

- Audio levels may vary based on the cartridge(needle) tone arm counter weight, vinyl, and computer set up. We recommend always normalizing your audio.
- Similar to word processing, you may delete unwanted audio by dragging over the section, which will highlight, then pressing “Delete”. This may include excessive hiss, silence before/after songs, or skips/scratches.
- You must select the noise profile before you can remove the noise from a track. If you select actual audio for the noise profile, the computer may remove all of your audio. See Step 1.
- Once the Noise Profile is set, it will save the profile until you restart the application. In other words, the software must learn what the noise only when you first start the software. You do not need to get the noise profile for every recording once it is set up.
- The noise removal algorithm in the software is one of many available to you. We have also included a demonstration version of Sound Soap 2 from Bias Inc which can also reduce vinyl noise.

High Speed Recording of your Vinyl (Optional)

Using the TTUSB with Audacity software, you are able to quickly record your 33 1/3 speed vinyl into the computer and use the software to adjust the faster speed back to normal playback. This feature is useful for recording multiple records. For example, you can record 10 minutes of audio in as little as 7 minutes when recording at 45RPM with an additional 10% increase using the pitch fader.

Saving three minutes isn't a large savings for one record, but if you are recording multiple LPs, you can record 4 hours of music in under 3 hours.

Instructions:

1. Record your 33 1/3 RPM vinyl at 45RPM by pressing the 45RPM button on the top panel.
2. You will hear the audio recording at a unusual pitch due to its high speed.
3. When you finish recording stop the recording.
4. Go to "Edit" and "Select All" (See Figure 5)
5. Go to "Effect" and then the "Change Speed" Menu.
6. Select from "45" to "33 1/3" and your vinyl will be adjusted to the correct speed as shown in Figure 10 (optional) add additional percentage change by manually typing in the change. (ie. To adjust record at 45 RPM with +10% on the turntable pitch fader, select 45 to 33 1/3 and then subtract an additional 10% (-25.9% to -35.9% if you record at 45 RPM with +10% on the turntable pitch fader)

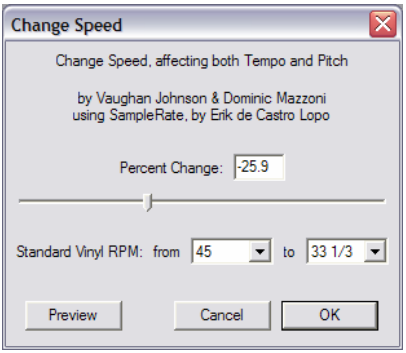


Figure 10: Change Speed

Dividing Your Album into Tracks

Note: You must finish all cleaning and editing, including removing unwanted silence before/after songs, before dividing your album into tracks.

Figure 11: Fit Project in Window

1. Select the "Fit Project in Window" tool as shown in Figure 11.
2. After zooming out to see all of the tracks, you can see the separation between tracks by the gaps as shown with 1,2,3 below. The next steps show how to label these tracks and export them to WAV (CD quality) format.

Figure 12: Identifying Separate Audio Tracks

3. Press the "Skip to Start" button  to move to the beginning of the recording
4. Select the "Project Menu" and then select "Add Label At Selection." This will set the starting point of the first track.
5. Type in the name of the first track, the text will show at the label marker. (See Figure 14)

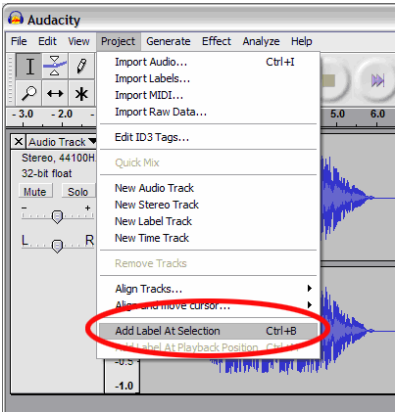


Figure 13: Adding Track Label

6. Select the space between tracks (where there is no audio) by clicking once. (vertical circle below)
7. You will see a line where you clicked.
8. Then repeat Step 4: "Add Label At Selection."
9. Note: you can add or edit any track name (circled.)

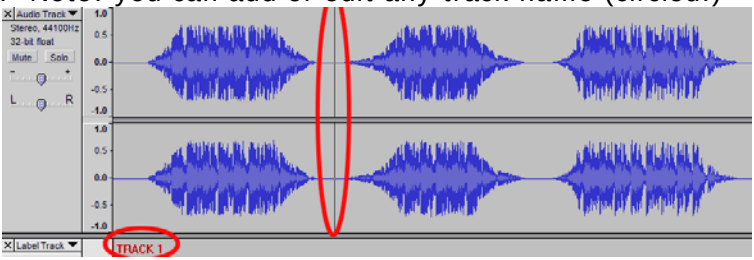


Figure 14: Track Separation and Labels

10. Repeat this process for adding labels for all tracks. You may need to zoom in to select the tracks and track separation. You may also want to hear the part of the track before you add a label for the track. Use the space bar to easily start and stop playback.

    Note: the label is placed at the START of the track. For example, in Figure 14, TRACK 1 is labeled at the beginning of audio recording. Track 2 is the label between the first and second track. You can also edit track names after they have been exported into your computer.

    In this three track example, the final break up is shown in Figure 15:

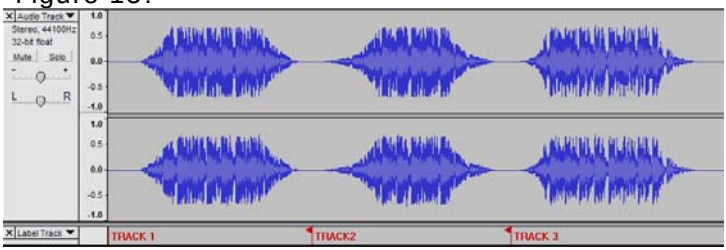


Figure 15: Completed Track Names Example

Additional Notes:

There are many different ways to edit your file. Dividing your file into separate tracks by adding labels is one way to accomplish this. You can always undo any mistakes in editing. Make sure to save your file regularly.

Export Tracks to Separate Files

This section explains how to export your separated files to WAV format to burn to a CD. You may also choose to convert to MP3 requiring 3rd party software downloaded from the internet. Refer to the software help section for more information.

1. Now that you have divided up your tracks into labels from the master recording file, you are going to export the files into separate files.
2. Select the "File" menu and then select "Export Multiple…" as shown in Figure 16:

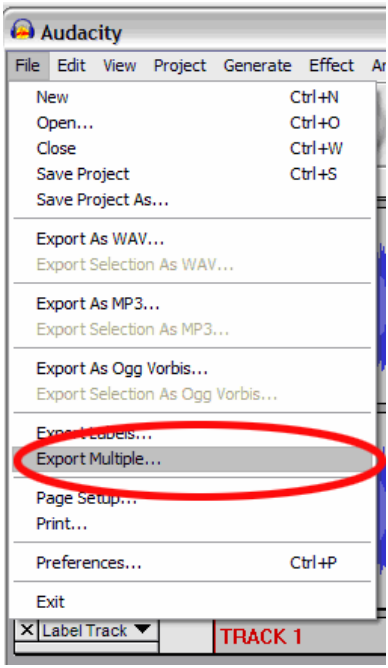


Figure 16: Export Multiple

3. The "Export Multiple" window will come up (see Figure 17).
   a. Select "WAV" as the export format and choose the Export location.
   b. Select the Export Location. This is where you will save your files. You may want to create a special folder on your Desktop with the Album Name to store the files.
   c. Select the "Using Label/Track Name" as shown. *Note: You may want to export using consecutive numbering and change the names later. In this case you can select the other option.*

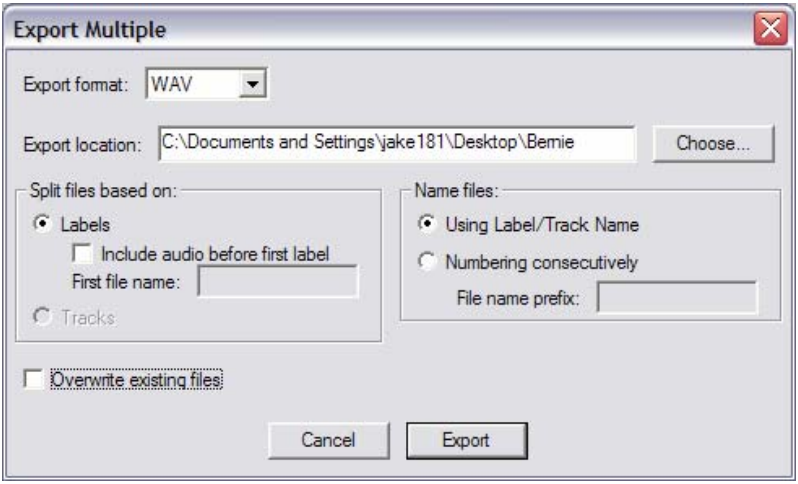


Figure 17: Export Options Menu

Listen and Exporting to WAV/MP3

To listen to your digitized audio, you will need a third party application that can play WAV files. There are a variety of applications built into many operating systems as well as free downloads on the internet. You can also use any standard audio CD burning software to burn your WAV files to an audio CD.

There are many free software applications that can play, burn, as well as convert WAV files to MP3. Once a file is in MP3 format it can be placed on any MP3 compatible mobile digital device.

Recording 78RPM Records

If you want to record a 78rpm album, you can record it at 33.3 or 45 RPM and convert it to 78 RPM in the Audacity software! After you have recorded the album, open the "Edit" menu then click "Select" then click "All". Next, open the "Effect" menu and choose "Change Speed". Then select the speed that you recorded at (33 or 45), as well as the speed you would like it to be (78). Then press "OK".

Troubleshooting:

Please contact Numark or your retailer before returning this product. See the Safety Guide for more information

- **NO SOUND:**
  - If you are not getting any sound into the software application, go back to the preferences as shown above and make sure you have selected the USB input for the recording device.
  - If you can not hear the music but you do see the music on the screen, open your preferences (Figure 3) and make sure that your "Playback Device" is set to your internal computer soundcard.
  - Power Cycle: Close Audacity, turn off the turntable, unplug the USB Cable. Then plug in the USB Cable, turn on the turntable, and reopen Audacity.

  - Check the microphone slider to make sure that it is at full volume to the right as shown in Figure 18:

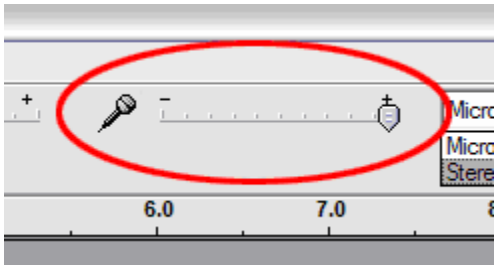


Figure 18: Input Level

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Troubleshooting (continued)

- **POOR SOUND Quality:**
    - If the sound sounds distorted or garbled while playing back what you have recorded, you may need to adjust the input volume from the turntable. Try moving the slider to the right to lower the input volume. You can use the normalize effect as described above to bring the volume back up to normal after the recording.
    - Also check your cartridge connection to make sure it is secure to the tone arm. You need to have the cartridge even when using the line input on the device to prevent feedback.
    - Make sure that your RCA plugs are plugged into a source or not touching bare metal. If you are experiencing noise through the USB, you may have interference from the RCA plugs.
    - If you experience any odd sounds coming from the recording, try closing all applications, restarting the computer, and only run Audacity while recording.
    - If you are using the RCA plugs, make sure that you have the PHONO/LINE switch on the bottom panel set to the correct position. Refer to the quick start guide for more information.

For technical support, please contact Numark Industries at (401) 658-3131

Manual Version 1.5